BIOCHEMISTRY AND HUMAN METABOLISM. Burnham S. Walker, M.D., Ph.D., Professor of Biochemistry; William C. Boyd, Ph.D., Professor of Immunochemistry; Isaac Asimov, Ph.D., Assistant Professor of Biochemistry, all at Boston University School of Medicine. The Williams and Wilkins Company, Baltimore, 1952. 812 pages, $9.00.

The foreword by John T. Edsall expresses well the purpose and spirit of this book. He describes the book as having a freshness and vitality in its outlook and presentation which is distinctive among biochemistry textbooks written for medical students. Professor Edsall further expresses his enthusiasm in that the first chapter is devoted to proteins, the basic material in cell structure and function. The authors do not attempt to precisely define proteins, but describe them as "large molecules, of molecular weight of the order of several thousand to several million, occurring in the tissues of plants and animals and containing carbon, hydrogen, oxygen and nitrogen, and sometimes other elements, and constructed largely from amino acids." This definition differentiates proteins from other compounds of biological interest, although not by any means describing this class of substance, whose members differ so much from each other.

There are three major attributes of biological chemistry discussed: structure, function and pathology. Structure is explained in the four chapters of Part I which describe proteins and amino acids, protein structure, tissue chemistry, and blood and the anemias. The discussion of function requires fourteen chapters, grouped into Part II, Control; Part III, Growth; and Part IV, Metabolism. Two chapters of approximately fifty pages each are devoted respectively to enzymes and to hormones, which control the rate and direction of the chemical reactions occurring in metabolic processes. These two chapters describe the basic chemical processes catalyzed by enzymes and hormones, as well as the structure and nature of the catalysts themselves. It is furthermore made clear that although there is an apparent static structure of the human body, it is in reality "a system in which the various components are in a state of flux and are related to and depend upon one another in complex fashion. Nothing in the body remains static, not even the inorganic constituents of the bones and teeth." The book deals with the body as a "dynamic phenomenon."

Part V, Pathology, contains the excellent Chapter 19 on Vitamins and Vitamin Deficiency Diseases, and Chapter 20, which discusses the physiology and theoretical chemistry of infection in a disappointingly general and sketchy manner.

Part VI is an appendix of four chapters on the physical chemistry of protoplasm. The authors are to be congratulated on their pedagogical insight and courage indicated by their placing this discussion at the end of the book. In so many books and university courses in biochemistry the reader or student is bored and frightened by the complex physical chemistry formulas and equations, so that he thumbs through the rest of the book listlessly or he takes lecture notes in a state of harassment because of his confusion. The authors of "Biochemistry and Human Metabolism" catch and hold the reader's interest because each step in the development of the subject is simple and clear, with few exceptions.

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PHYSICAL MEDICINE IN GENERAL PRACTICE—3rd Edition—Edited by William Bierman, M.D., and Sidney Licht, M.D., Paul B. Hoeber, Inc., 49 East 33rd Street, New York 16, 1952. 798 pages, $12.50.

This third edition is an entirely new book both in content and authorship. It has separate chapters by 22 authorities covering almost every aspect of rehabilitation. The book is divided into two sections—"methods" and "clinical applications." Under "methods" the routine aspects of physical therapy are adequately covered such as heat and cold, hydrotherapy, diathermy, ultra-violet radiation, and massage. Moreover, there are excellent chapters on the new and less-known methods such as ultra-sound, manipulation, functional muscle testing, exercise, and medical rehabilitation. The chapter on manipulation is one of the few good expositions of this controversial subject and should be read and studied by every physician dealing with musculo-skeletal disorders.

The wide spectrum of conditions covered under "clinical applications" ranging from eye to genito-urinary diseases gives proof to the statement that physical medicine has outgrown the concept of adjunctive therapy in orthopedics to become the broadest of the clinical specialties. Also physical medicine should and does consist of more than heat and massage and thus requires medical planning and supervision.

All in all, this book is one of the best now available in its field and is to be highly recommended to general practitioners and also specialists in neuromuscular and musculoskeletal conditions.

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VASCULAR DISEASES IN CLINICAL PRACTICE—2nd Edition—Irving Sherwood Wright, M.D., Associate Professor of Clinical Medicine, Cornell University Medical College. The Year Book Publishers, Inc., 1952. 552 pages, $8.50.

The second edition of this fine book has lost none of the compactness which characterized the first edition and which made it a concise source of information for those involved in the practice of clinical medicine. Chapter II embracing the history and physical examination as well as special study of the patient with vascular disease is eminently worthwhile reading for any physician in clinical practice regardless of specialty. The chapters allocated to arteriosclerosis and thromboangiitis obliterans are excellent and the selections on safeguards and therapy are extremely wise especially in regard to the use of vasodilators and sympatholytic drugs. Material has been added describing the more recent developments in the field of lipid metabolism in relation to arteriosclerosis. Other new material concerns the relation of ACTH and cortisone to the therapy of thromboangiitis obliterans, scleroderma, essential polyangiitis, and disseminated lupus. The anticoagulants Tromexin, Paritol, Hydroxycoumarin are also discussed at some length. Sections on amputation and cryoglobulinemia are also new to this edition. In general it can be said that Dr. Wright has made a successful effort to cull the most important and the most essential material available to provide a text of unusual aid for the practitioner of medicine.

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THE PATHOLOGY OF DIABETES MELLITUS—3rd Edition—Shields Warren, M.D., Sc.D., Departments of Pathology of the New England Deaconess Hospital and the Harvard Medical School; Director of the Division of Biology and Medicine, U.S. Atomic Energy Commission; and Philip M. LeCompte, M.D., Departments of Pathology, Falkner Hospital and Harvard Medical School, Boston. 112 illustrations and 3 colored plates. Lea & Febiger, Philadelphia, 1952. 336 pages, $7.50.

Doctor Warren and Doctor LeCompte have done a beautiful job of describing the various pathological changes found in diabetes mellitus. The subject is covered thoroughly including a description of the changes found in each organ of the body.

The only drawback of the book is that the known pathology of diabetes isn't too interesting in itself. After reading 315 pages of fairly drab pathology the only really exciting portion of the book is the three-page section on "A Unifying Concept of the Pathology of Diabetes Mellitus" (Chapter 28).

In summary then, this is a fine reference book but it is not recommended for entertaining reading.